

We claim:

1. A method of treating a substrate, in which the substrate contains an oxidizable metal compound having a color and a development speed under atmospheric conditions, the method comprising the step of:

contacting the substrate with an oxidizer to increase the development speed of the color.

2. The method of claim 1 further comprising the step of contacting the substrate with a base.

3. The method of claim 1 in which the substrate is contacted with the oxidizer in solution.

4. The method of claim 3 in which the oxidizer is selected from the group consisting of peroxides, percarbonates, perborates, peracetates, permanganates, chlorates, perchlorates, peroxymonosulfates, peroxy disulfates, bismuthates, and peracids.

5. The method of claim 4 in which the oxidizer is selected from the group consisting of sodium percarbonate, sodium peroxide, and hydrogen peroxide.

6. The method of claim 1 in which the substrate is contacted with the oxidizer in aqueous solution.

7. The method of claim 6 in which the oxidizer is present in the aqueous solution in an amount at least 0.1% by weight.

8. The method of claim 7 in which the oxidizer is hydrogen peroxide.
 9. The method of claim 7 in which the oxidizer is sodium percarbonate.
 10. The method of claim 7 in which the oxidizer is sodium peroxide.
11. A method of treating a substrate, in which the substrate contains an oxidizable metal compound having a color and a development speed under atmospheric conditions, the method comprising the step of:
- contacting the substrate with an oxidizer free of chromates to increase the development speed of the color.
12. The method of claim 11 further comprising the step of contacting the substrate with a base.
 13. The method of claim 11 in which the substrate is contacted with the oxidizer in solution.
 14. The method of claim 13 in which the oxidizer is selected from the group consisting of peroxides, percarbonates, perborates, peracetates, permanganates, chlorates, perchlorates, peroxyomonosulfates, peroxy disulfates, bismuthates, and peracids.
 15. The method of claim 14 in which the oxidizer is selected from the group consisting of sodium percarbonate, sodium peroxide, and hydrogen peroxide.

16. The method of claim 11 in which the substrate is contacted with the oxidizer in aqueous solution.
17. The method of claim 16 in which the oxidizer is present in the aqueous solution in an amount at least 0.1% by weight.
18. The method of claim 17 in which the oxidizer is hydrogen peroxide.
19. The method of claim 17 in which the oxidizer is sodium percarbonate.
20. The method of claim 17 in which the oxidizer is sodium peroxide.
21. A method of coloring a substrate, the method comprising the steps of:
applying an oxidizable metal compound to the substrate; and, subsequently,
contacting the substrate with a solution containing an oxidizer to oxidize the
oxidizable metal compound.
22. The method of claim 21 in which the substrate is manmade.
23. The method of claim 22 in which the substrate is a hydraulic material.
24. The method of claim 23 in which the substrate is concrete.
25. The method of claim 21 in which the solution is an aqueous solution.
26. The method of claim 25 in which the aqueous solution has a pH greater than 7.0.

27. The method of claim 26 in which the oxidizer is hydrogen peroxide in an aqueous solution containing sodium carbonate.
28. The method of claim 21 in which the oxidizer is contacted with the substrate by sprinkling the oxidizer in powder form onto the substrate and spraying the powdered substrate with an aqueous mist.
29. A method of coloring concrete, the method comprising the steps of:
staining concrete with a metal compound having a color; and
enhancing development speed of the color of the metal compound by contacting the concrete with an oxidizer in liquid solution.
30. The method of claim 29 in which the oxidizer is selected from the group consisting of peroxides and percarbonates.
31. The method of claim 30 in which the oxidizer is present in an amount exceeding 0.1% by weight of the liquid solution.
32. The method of claim 31 in which the liquid solution is an aqueous solution.
33. The method of claim 32 in which the aqueous solution has a pH greater than 7.0.
34. The method of claim 29 in which the liquid solution contains an organic solvent.
35. The method of claim 29 in which the concrete is stained with an acid solution containing a metal salt.

36. The method of claim 35 in which the metal salt is a salt of a metal selected from the group consisting of iron, chromium, copper, and manganese.
37. A method of coloring construction material, the method comprising the steps of: staining the construction material with a metal compound having a color; and enhancing development speed of the color of the metal compound by contacting the construction material with an oxidizer in aqueous solution.
38. The method of claim 37 in which the construction material is in the form of a feature selected from the group consisting of floors, walls, decks, playground surfaces, driveways, sidewalks, roadways, paths, paving stones, tiles, roofing tiles, countertops, tables, columns, facades and statues.
39. A method of coloring a substrate, the method comprising the steps of: applying an oxidizable metal compound to the substrate; and subsequently, contacting the substrate with an aqueous solution containing an oxidizer to oxidize the oxidizable metal compound, wherein the oxidizer is selected from the group consisting of peroxides and percarbonates and the oxidizer is present in an amount exceeding 0.1% by weight of the aqueous solution.
40. A method of treating a manmade substrate, in which the manmade substrate contains an oxidizable metal compound having a color and a development speed under atmospheric conditions, the method comprising the step of: contacting the manmade substrate with an oxidizer to increase the development speed of the color.

41. A method of treating a hydraulic substrate that is exposed to the atmosphere, in which the hydraulic substrate contains an oxidizable metal compound having a color and a development speed under atmospheric conditions, the method comprising the step of:

contacting the hydraulic substrate with an oxidizer to increase the development speed of the color.

42. A method of treating concrete, in which the concrete contains an oxidizable metal compound having a color and a development speed under atmospheric conditions, the method comprising the step of:

contacting the concrete with an oxidizer free of chromates to increase the development speed of the color.